

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

PCT/JP2003/005088



Applicant's or agent's file reference IPY-138	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/005088	International filing date (day/month/year) 22 April 2003 (22.04.2003)	Priority date (day/month/year) 22 April 2002 (22.04.2002)
International Patent Classification (IPC) or national classification and IPC F21V 8/00, F21Y 101:02		
Applicant MITSUBISHI RAYON CO., LTD.		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>7</u> sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of _____ sheets..
3.	This report contains indications relating to the following items: <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input checked="" type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 22 April 2003 (22.04.2003)	Date of completion of this report 05 December 2003 (05.12.2003)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/005088

I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/005088

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

(See supplemental sheet)

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos. _____

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 03/05088

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: IV. 3

The common feature among claims 1-48 is the feature wherein the "plate-like waveguide...the sectional form of the rows of irregular structures perpendicular to the direction in which the rows extend is such that 10% or more of the angle components that are formed by the tangent and the aforementioned rows of irregular structures in the fine areas have inclination angles with absolute values between 20-50°."

However, the results of the search make it clear that the abovementioned common feature does not involve an inventive step in the light of document 1 and document 2, which are cited in the international search report as category "Y" documents.

Consequently, the abovementioned common feature does not define a contribution over the prior art; therefore, said common feature is not a "special technical feature" in the meaning of PCT Rule 13.2, sentence 2.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 03/05088

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-48	YES
	Claims		NO
Inventive step (IS)	Claims	6, 13, 16, 20, 25-29, 40-41, 47-48	YES
	Claims	1-5, 7-12, 14-15, 17-19, 21-24, 30-39, 42-46	NO
Industrial applicability (IA)	Claims	1-48	YES
	Claims		NO

2. Citations and explanations

Document 1: JP 2000-294019 A (Mitsubishi Rayon Co., Ltd.), 20 October 2000, paragraphs [0016] to [0018]

Document 2: JP 11-287993 A (Shimada Precision Co., Ltd.), 19 October 1999, paragraph [0018]

Document 3: JP 2001-66590 A (Enplas Corp.), 16 March 2001, paragraphs [0027], [0029] to [0031], and [0048]

Document 4: JP 11-52380 A (Enplas Corp.), 26 February 1999, paragraphs [0008] and [0032]

Document 5: JP 2002-46159 A (Sumitomo Chemical Co., Ltd.), 12 February 2002, paragraphs [0026] and [0043]

Document 6: JP 2000-98382 A (Colcott Kabushiki Kaisha), 07 April 2000, paragraph [0005]

The inventions set forth in claims 1, 2, 18, 21, 24, 30-33, 35-38 and 42-46 do not involve an inventive step in the light of document 1 and document 2 cited in the international search report. It would be easy for a person skilled in the art to employ the point light source that is disclosed in document 2 in the invention that is disclosed in document 1.

The invention set forth in claim 3 does not involve an inventive step in the light of document 1, document 2 and document 3 cited in the international search report. It would be easy for a person skilled in the art to employ the point light source that is disclosed in document 2 and the feature of providing the back surface with a light-scattering pattern that has a rough surface, which is disclosed in document 3, in the invention that is disclosed in document 1.

The invention set forth in claim 4 does not involve an inventive step in the light of document 1, document 2 and document 3 cited in the international search report. It would be easy for a person skilled in the art to employ the point light source that is disclosed in document 2 and the feature of configuring so that the sloped parts of the projections have a rounded form, which is disclosed in document 3, in the invention that is disclosed in document 1.

The invention set forth in claims 5, 10-11, 14-15, 17 and 19 does not involve an inventive step in the light of document 1, document 2 and document 3 cited in the international search report. It would be easy for a person skilled in the art to employ the point light source that is disclosed in document 2, as well as the feature of configuring so that the sloped parts of the projections have a rounded form and the feature of connecting the projections either directly or via the curved surfaces that have an approximately rounded sectional form, which are disclosed in document 3, in the invention that is disclosed in document 1.

The invention set forth in claims 7-9, 12 and 34 does not involve an inventive step in the light of document 1, document 2 and document 4 cited in the international search report. It would be easy for a person skilled in the art to employ the point light source that

is disclosed in document 2 and the feature of configuring so that the radii of the curvatures of the curved surfaces that connect the sloped surfaces of the fine projecting parts increase in the vicinity of the incident surface, which is disclosed in document 4, in the invention that is disclosed in document 1.

The invention set forth in claims 22-23 does not involve an inventive step in the light of document 1, document 2 and document 5 cited in the international search report. It would be easy for a person skilled in the art to employ the point light source that is disclosed in document 2, as well as the feature of polishing the mold and the feature of providing an irregular pattern to the mold by means of an etching method, which are set forth in document 5, in the invention that is disclosed in document 1.

The invention set forth in claim 39 does not involve an inventive step in the light of document 1, document 2 and document 6 cited in the international search report. It would be easy for a person skilled in the art to employ the point light source that is disclosed in document 2 and the feature of forming a radial pattern that expands from the light-source side, which is disclosed in document 6, in the invention that is disclosed in document 1.